



Fall & Winter Weather Hazards

Presented by:

Fort Rucker Weather Operations

Overview

- Products & Services
- Hours of Operation
- Climatology
- What's New
- Fall-Winter Hazards
 - Turbulence & Low level wind shear (LLWS)
 - Icing
 - Thunderstorms
 - Tornadoes
 - Hurricanes

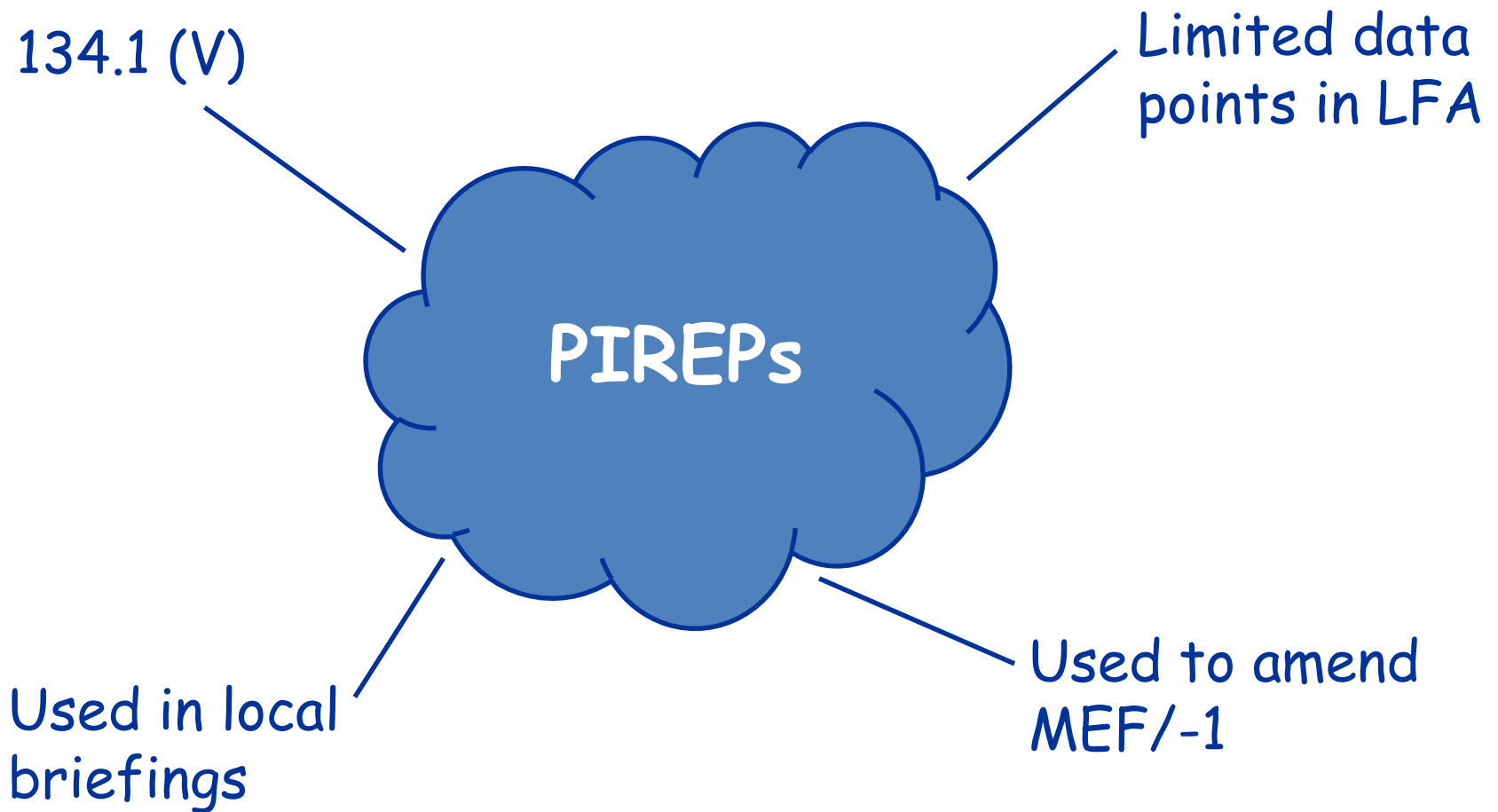
Products & Services

- FRWXOPS Provides:
 - Weather Briefings
 - Resource Protection
 - Observing
 - PMSV
 - Climatology
 - Seasonal Weather Briefings
 - You name it, we do it!

Hours of Operation

- Observing/Forecasting (KOZR)
 - 01L Monday - 00L Saturday, excluding federal holidays
- Contact 26 OWS for after-hours support
 - DSN 331-2651/2652
 - COMM 318-529-2651/2652
- Request DD 175-1 thru JET
 - No account needed

PIREPs

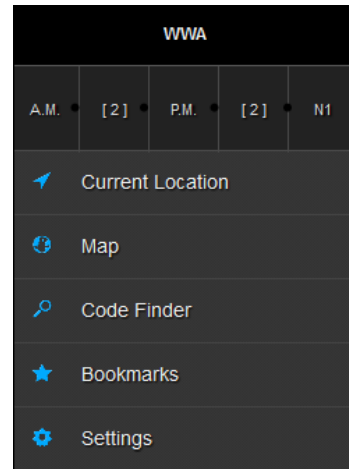


What's New




GRAB OUR APP

AM MEF AMENDED TO KEEP GOLDFISH IFR UNTIL 17Z AND IMPROVE NORTH AREAS TO VFR REMAINDER OF AM PERIOD.



What's New





Grab our App



Home


LTG POTENTIAL WIN 15NM. CHECK MEF FOR DETAILS.


Weather - Ft. Rucker, AL


Tue	Wed	Thu	Fri
 95° Chance of Storm	 97° Chance of Storm	 97° Chance of Storm	 95° Chance of Storm


WWA


A.M. • [2] • P.M. • [2] • N1


 Current Location

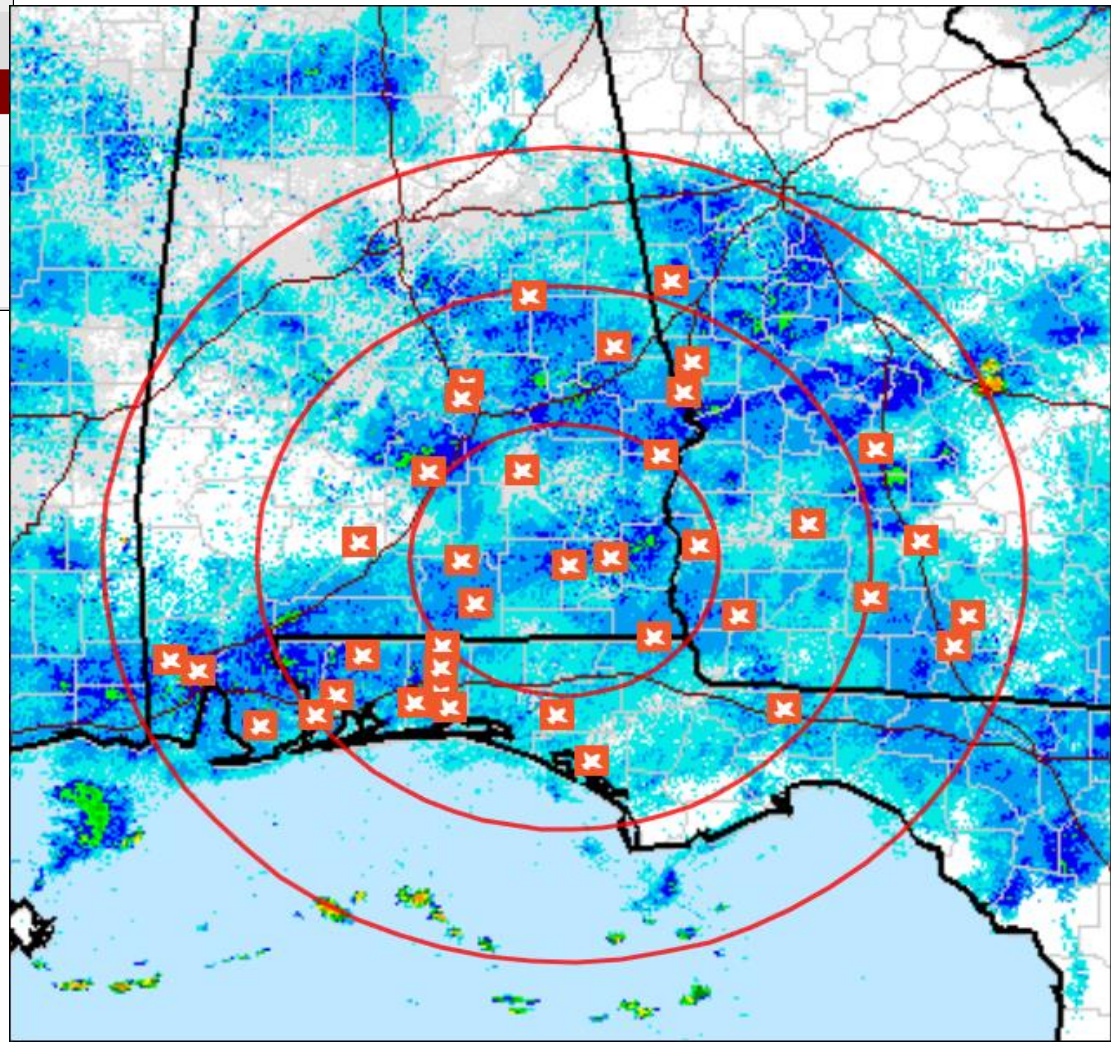
 Map

 Code Finder

 Bookmarks

 Settings


















search... 



What's New

- Wx Info Freq: 348.8 (U)
 - MEF AMDs
 - Void times
- Lightning warnings for Base Fields + Molinelli
 - Towers & Refuel receive robo-call

What's New

Valid	0 hr Fri 15/06Z	3 hr Fri 15/09Z	6 hr Fri 15/12Z	9 hr Fri 15/15Z	12 hr Fri 15/18Z	15 hr Fri 15/21Z	18 hr Sat 16/00Z	21 hr Sat 16/03Z	24 hr Sat 16/06Z	27 hr Sat 16/09Z	30 hr Sat 16/12Z	33 hr Sat 16/15Z	36 hr Sat 16/18Z	39 hr Sat 16/21Z	42 hr Sun 17/00Z	45 hr Sun 17/03Z	48 hr Sun 17/06Z
Temp:	53°F	51°F	51°F	56°F	68°F	67°F	61°F	58°F	55°F	56°F	55°F	65°F	74°F	75°F	71°F	69°F	67°F
DP Temp:	46°F	46°F	48°F	51°F	57°F	58°F	58°F	57°F	55°F	55°F	55°F	58°F	62°F	63°F	62°F	63°F	63°F
Humidity:	76%	84%	90%	82%	67%	72%	90%	96%	99%	100%	99%	79%	67%	66%	74%	79%	87%
Wind Chill:																	
Heat Index:													76°F	77°F	73°F		
FITS:					80°F	80°F	74°F	71°F				77°F	86°F	88°F	84°F	83°F	81°F
Gen Wx:	 Mostly Cloudy	 Mostly Cloudy	 Mostly Cloudy	 Mostly Cloudy	 Partly Cloudy	 Mostly Cloudy	 Mostly Cloudy	 Mostly Cloudy	 Partly Cloudy	 Mostly Cloudy	 Mostly Cloudy	 Mostly Cloudy	 Mostly Cloudy	 Mostly Cloudy	 Mostly Cloudy	 Partly Cloudy	 Cloudy with Rain
Cloud Coverage:	5	5	8	8	3	8	8	8	3	6	7	5	5	8	8	3	8
Lowest Ceiling:	160	125	125	100		090	009	009		100	090	040	055	055	035		024
Wind (kts):	080/05	080/07	090/07	100/07	130/07	150/08	140/05	110/04	070/04	060/04	080/05	090/09	100/09	110/08	110/05	130/05	100/04
Cross Wind (kts):																	
1000ft Winds:	130/26	145/27	157/27	162/26	168/17	157/14	173/16	163/17	158/12	143/08	142/09	139/12	110/10	112/11	129/17	144/20	151/21
2000ft Winds:	143/25	161/27	171/24	177/20	190/18	167/13	178/09	153/13	150/12	162/09	169/08	163/09	154/10	114/12	131/17	145/22	156/21
3000ft Winds:	160/26	173/27	185/18	189/12	207/12	191/06	136/06	143/11	146/13	178/10	185/09	181/08	177/10	150/12	139/17	150/23	164/22
4000ft Winds:	170/29	188/25	198/12	193/07	212/09	185/04	139/08	140/12	148/13	186/10	201/10	202/09	188/11	178/14	168/17	166/22	178/25
5000ft Winds:	181/33	198/23	238/06	305/01	205/06	165/04	142/08	142/11	153/09	187/08	200/09	212/11	195/14	184/19	183/20	181/21	191/24
6000ft Winds:	188/30	207/20	285/11	275/07	181/02	161/03	142/05	145/04	134/03	166/04	175/08	191/12	198/17	192/21	197/19	191/19	198/23
Visibility (sm):	15	8	6	5	13	9	5	5	3	2	1	7	8	8	9	13	5
Precip:																	RAIN
3 Hr Precip (in):																	0.027
Prob of Precip:											4%					4%	75%
Prob of TSTM:																	1%
Prob of Snow:																	
Prob of Frz Precip:																	
Prob of Fog:			2%				2%	3%	19%	23%	17%						
ALSTG (inhg):	30.26	30.22	30.22	30.24	30.20	30.16	30.16	30.19	30.19	30.18	30.19	30.23	30.16	30.10	30.12	30.15	30.12
Press Alt (ft):	-15	22	18	2	36	70	73	45	48	56	42	11	75	130	111	82	110
Density Alt (ft):	-272	-365	-358	14	873	863	458	193	28	54	10	611	1309	1471	1193	1047	927
Max Turb Blo 10K:	LGT	LGT			LGT	LGT	LGT				LGT						
Max Icg Blo 10Kt:																	
Trop Hgt (ft):	45953	42833	45987	45997	45989	45935	46026	46088	46115	46122	46180	43165	46263	46245	46285	46304	46259
Freezing Lvl (ft AGL):	12741	11386	9783	9556	10124	10726	11910	12597	12198	11576	11820	12741	12723	12857	12904	12974	13152

What's New

THE WEATHER LETTER

4th Quarter 2013

What's New?

In an effort to provide situational awareness and improve flight and ground safety at the Base Fields, we have added Lowe, Shell, Hanchey, Knox, and Molinelli to our list of lightning warnings. We now issue lightning warnings when lightning is observed within 5NM of each respective location. We will notify the respective Towers as well as Refueling.

Just a quick reminder about our hours of operation. We are open Monday 0100L through Saturday 2400L. We will be closed on Sundays and federal holidays. Should you require support after our duty hours, please contact the 26 OWS at DSN 331-2651/52/53.

Have you seen our planning data? We post planning data for the next two days every MEF cycle. Check it out at <http://www.rucker.army.mil/weather/PRODUCTDROP/planning.html>.

We are still printing out both small and large copies of the MEF/DD 175-1 in an effort to reduce our paper consumption. If we're out of large copies and you or your students need more, all you have to do is ask and we'll be happy to print more copies.

Information Station

Hurricane season has been a dud so far: we've had 1 tropical depression, 7 tropical storms, and 2 hurricanes. Fortunately, none of these posed a threat to the US.

As we transition into the fall months, there are several hazards to keep in mind. As the jet stream dives further south, we will see cold fronts pushing through south AL. Along and behind these cold fronts, we are prone to turbulence, icing, and/or low-level wind shear. Of particular interest to our TH-67s and OH-58s is induction icing. Remember, induction icing can occur with temperatures as warm as +04C. Block 17 on the local DD 175-1 is just for you! Check it out to see if conditions are favorable for induction icing.

Fall, specifically November, is our secondary severe weather peak. We experience the same transition, the same clash of air masses, as we do during the spring months. The result is thunderstorms and their associated hazards along with the potential for tornadoes.

The long-range predictions are in! Climate experts are calling for average temperatures/average precipitation for Oct-Dec and average temperatures/below average precipitation for Jan-Mar.

What's New

- Grid lines on the MEF
 - More flexibility in forecast areas
 - Maximize training time

WEST OF GRID LINE 70: 12003KT 1/2SM FG OVC 002

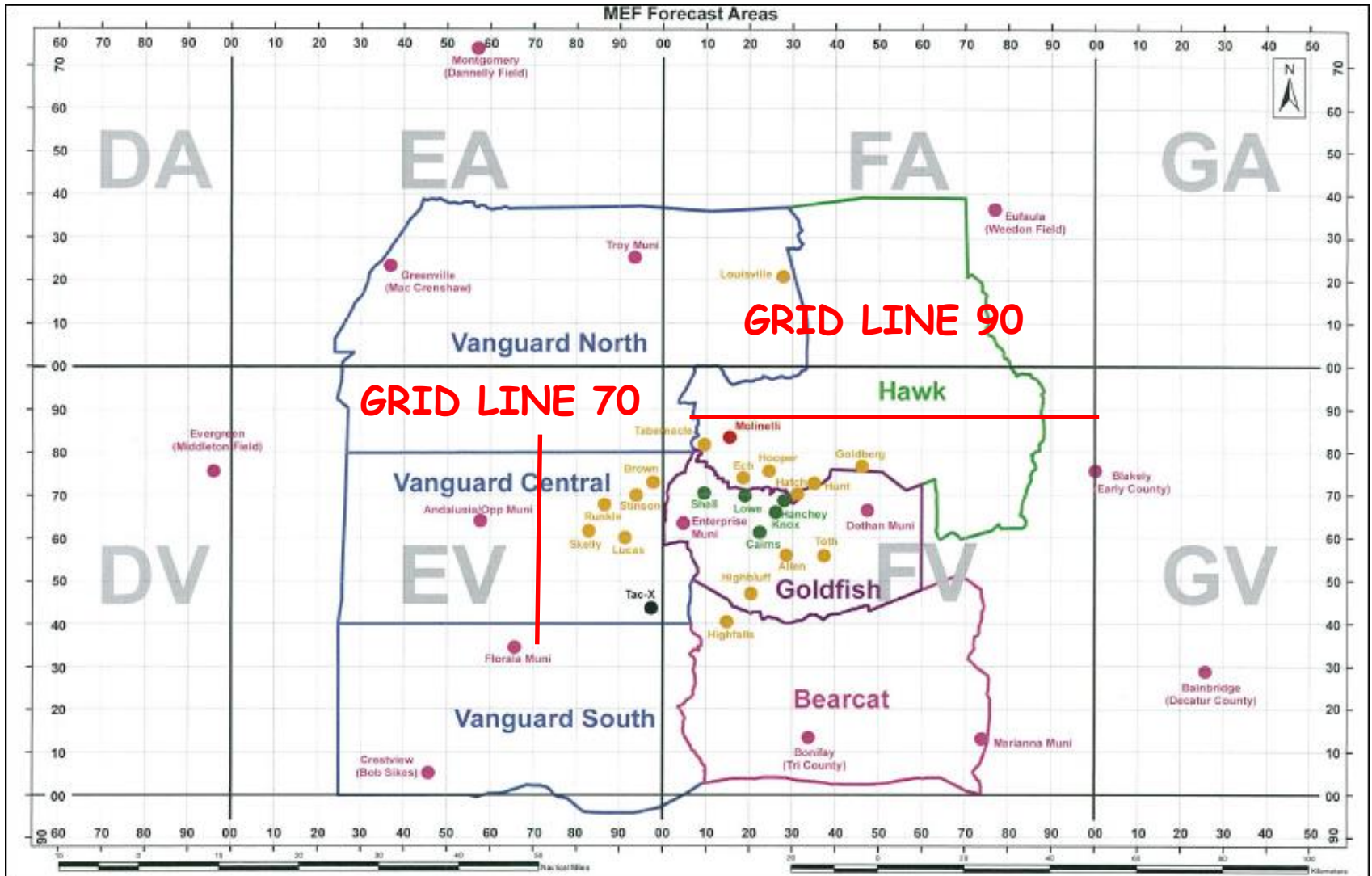
AFT 1330Z: 12003KT 3SM BR BKN005

AFT 1500Z: 12005KT 7SM FEW008 BKN020

EAST OF GRID LINE 70: 12003KT 3SM BR SCT002 BKN050

AFT 1330Z: 12003KT 7SM SCT050

What's New



What's New

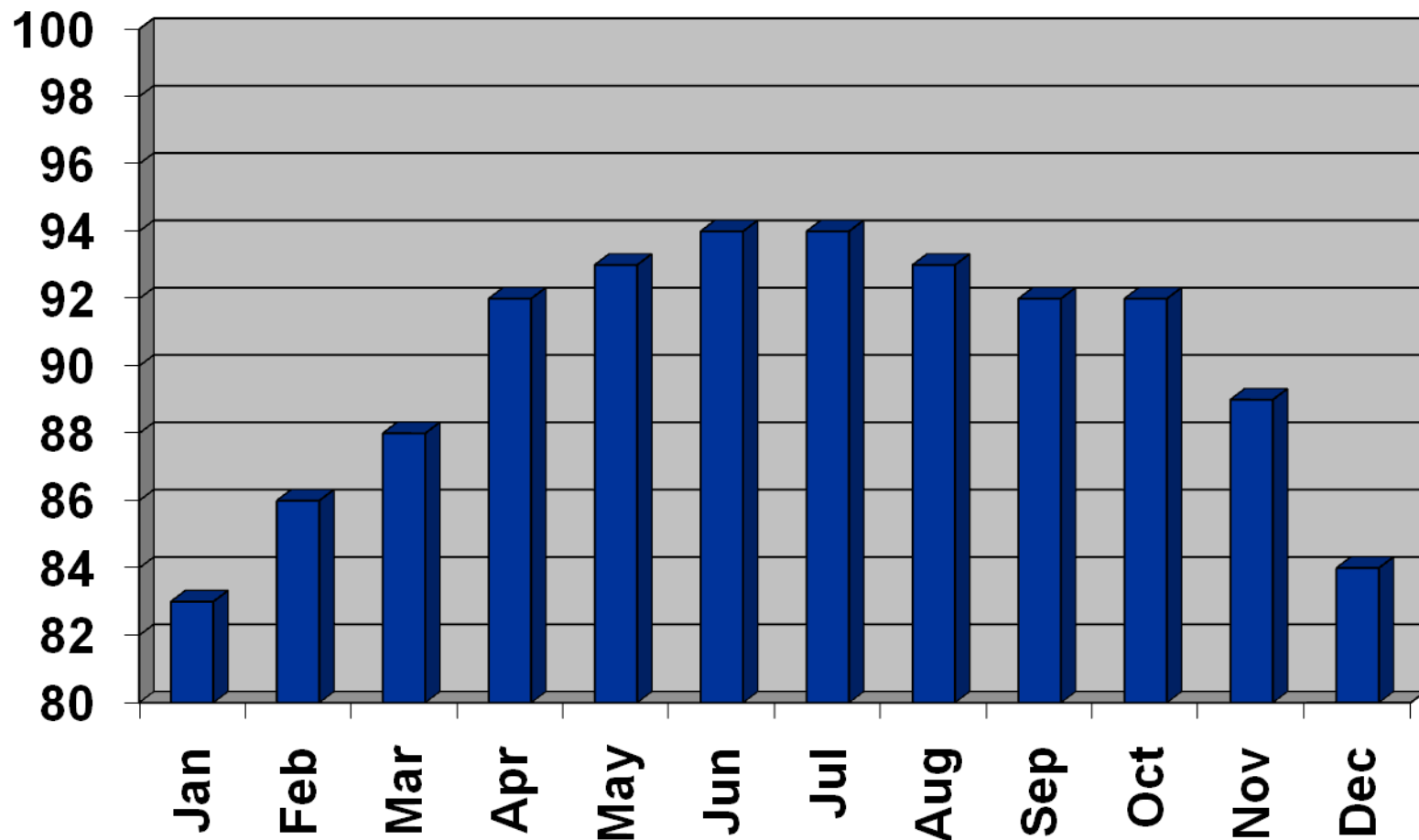
- VCTS
 - Better articulate probability and confidence
 - Reduce/limit TEMPO lines to higher storm threats
 - Implementation on/about 01 Nov

DEST/ALTN KOZR	1130	Z TO	1530	Z	21009	7		SCT020 SCT035 SCT250	30.00	INS
DEST/ALTN FROM	1530	Z TO	1700	Z	21010	7	VCTS	FEW020 BKN035 BKN250	29.97	INS
DEST/ALTN TEMPO	1700	Z TO	1800	Z	VRB15G25	1/2	TSRA	FEW008 BKN020		INS
DEST/ALTN		Z TO		Z						INS
DEST/ALTN		Z TO		Z						INS

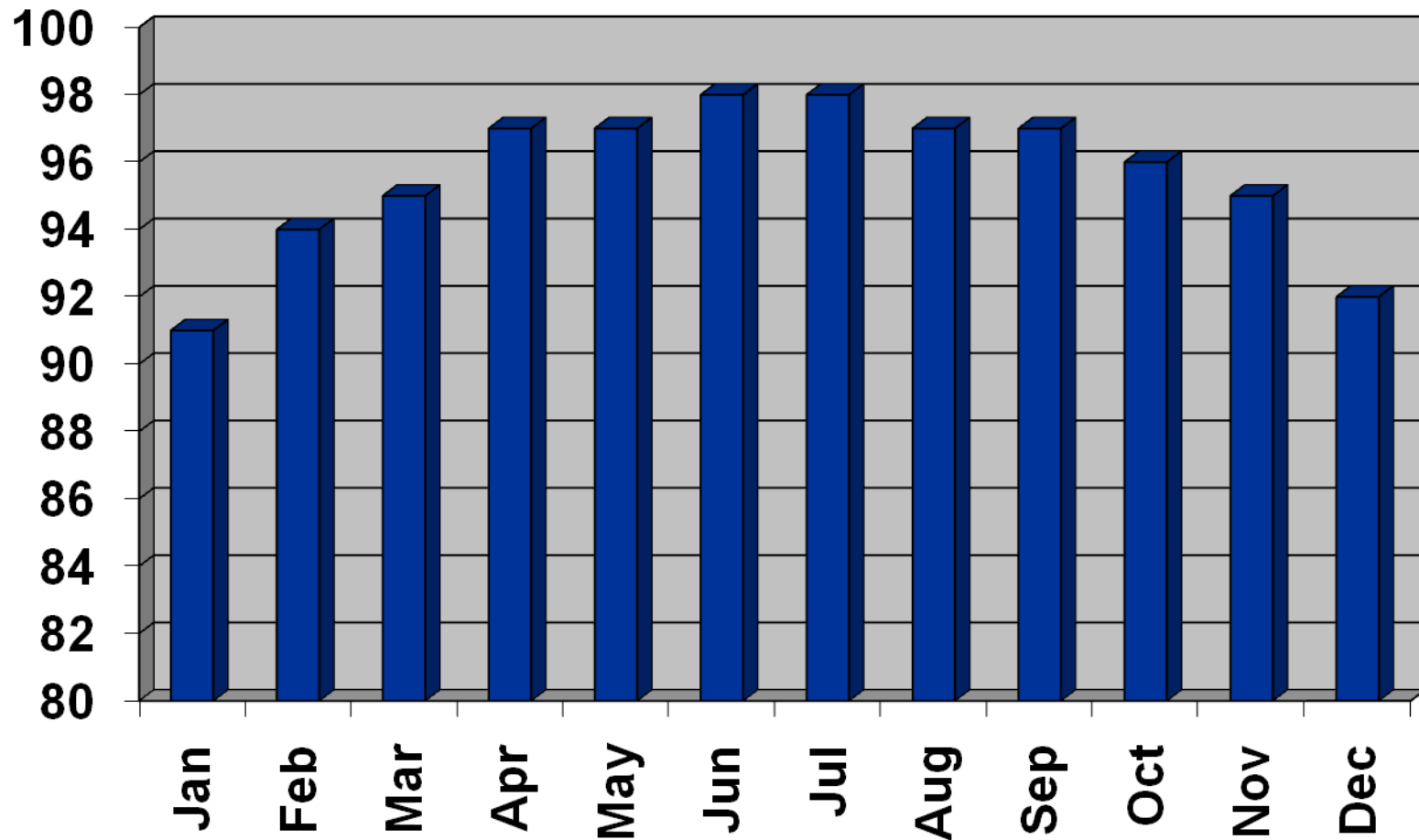
What's New

HAZARD IDENTIFICATION (CODING)	HAZARD ASSESSMENT BASE FIELD IMPACT	AREAL COVERAGE
No thunderstorms	Unlikely Probability 10% or less	None
VCTS (Ex: 7SM VCTS)	Small Possibility Probability 10-30%	ISOLD
TEMPO (Ex: 1/2SM +TSRA)	Moderate-High Possibility Probability >30% Timing confidence low	Normally FEW or greater
Predominant (Ex: 1/2SM +TSRA)	High Possibility Probability >50% Timing confidence High	Normally FEW or greater

Percent $\geq 1000/3$



Percent $\geq 500/1$

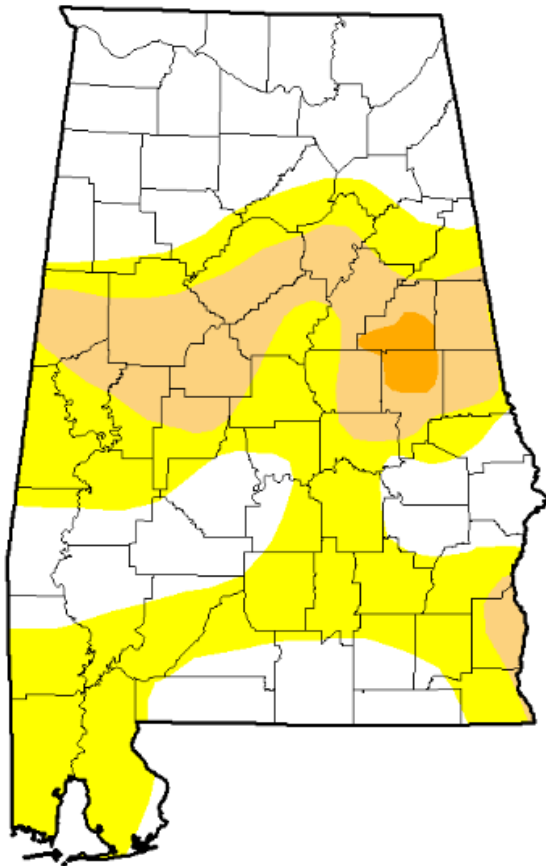


Climatology

	Tmax	Tmin	Tmean	Dir	Speed	Precip
JAN	59	39	49	N	5	4.79
FEB	63	42	52	N	5	5.07
MAR	70	48	59	NW	5	5.62
APR	78	55	66	NW	4	4.17
MAY	84	63	74	NE-E	4	3.69
JUN	89	70	79	S-SW	4	4.85
JUL	90	72	81	SW	4	5.19
AUG	90	72	81	NE-E	3	4.43
SEP	86	68	77	NE-E	3	3.97
OCT	78	56	67	NE-E	4	3.37
NOV	69	47	58	N	4	3.50
DEC	62	41	51	N	5	4.25

Drought Monitor

U.S. Drought Monitor Alabama



KOZR YTD:
50.53"

KLOR YTD:
45.90"

KHEY YTD:
46.32"

YTD AVG:
45.15"

Intensity:

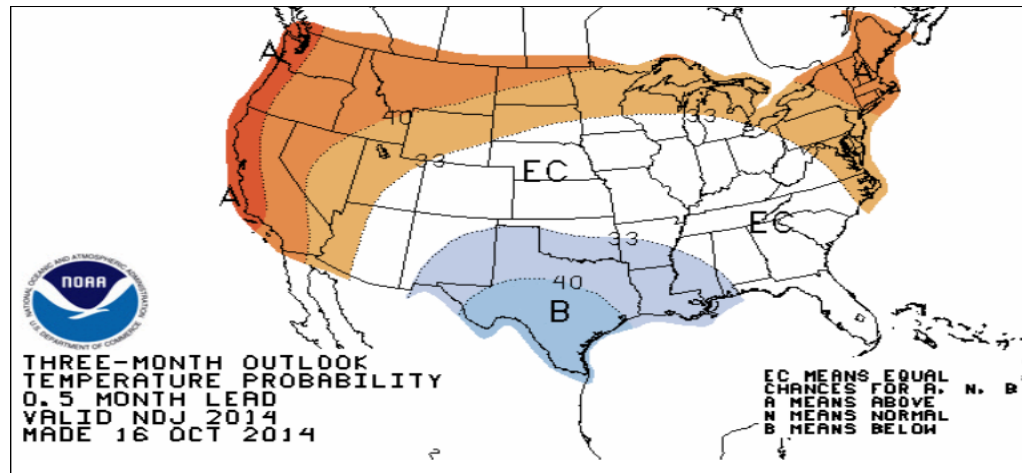
D0 - Abnormally Dry
D1 - Moderate Drought
D2 - Severe Drought

D3 - Extreme Drought
D4 - Exceptional Drought

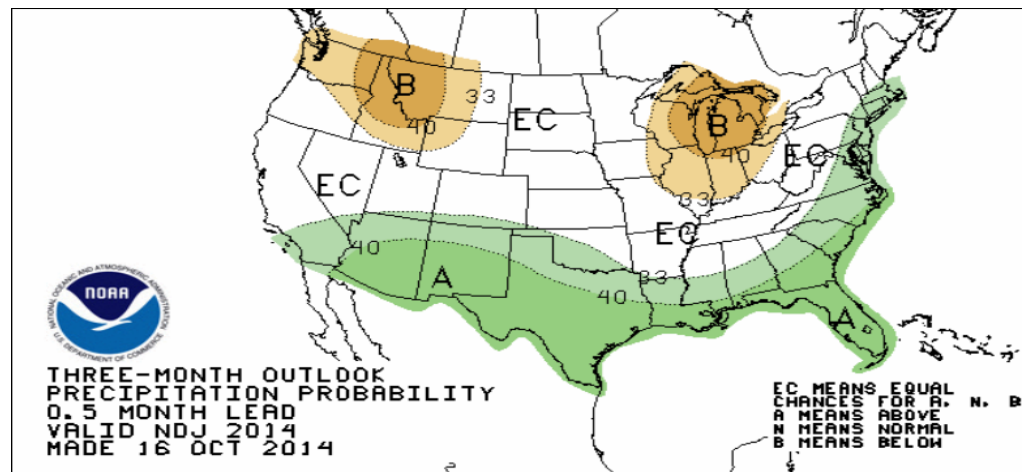
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying [text summary](#) for forecast statements.

Seasonal Outlook

Avg temps



40% chance
of above
avg precip



Seasonal Weather Hazards

- Fall-Winter
 - Turbulence / Low Level Wind Shear (LLWS)
 - Icing
 - Thunderstorms
 - Tornadoes

Turbulence & LLWS

- Turbulence
 - Wind speed/direction gradients associated with jet stream
- LLWS
 - A drastic change in wind speed and/or direction in the lower 2000 feet of the atmosphere



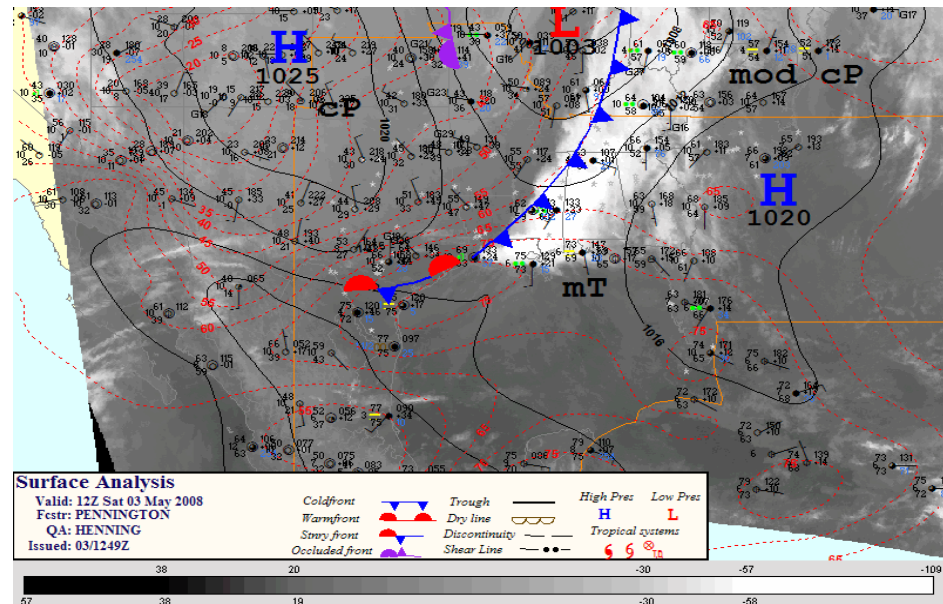
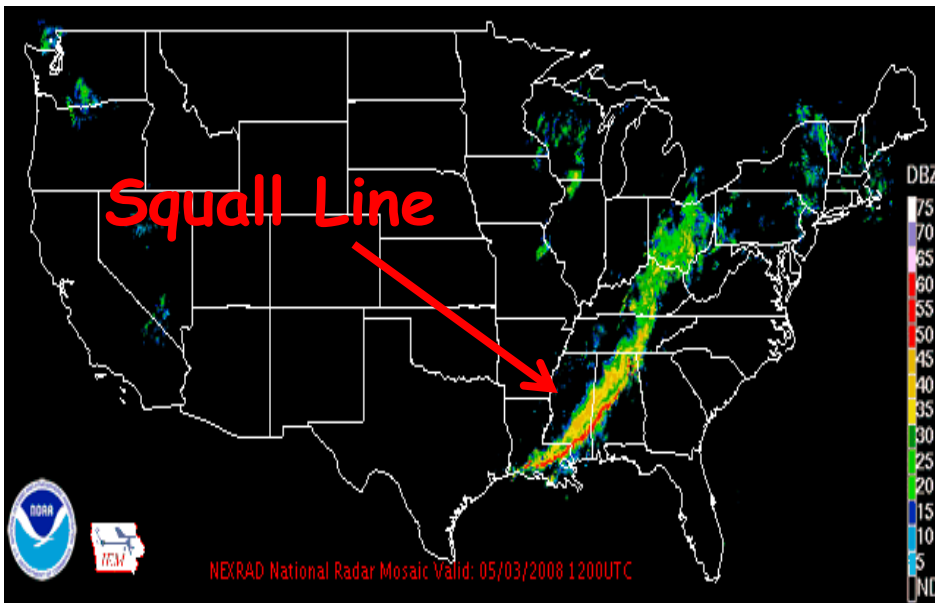
Icing

- Icing
 - Increases the weight of the aircraft
 - Decreases lift
 - Don't forget about induction icing (+04C and visible moisture)

Thunderstorms

- Within 20NM of thunderstorms, expect:
 - Lightning
 - Hail
 - Heavy precipitation
 - LLWS
 - Microburst
 - Severe icing
 - Severe turbulence

Thunderstorms

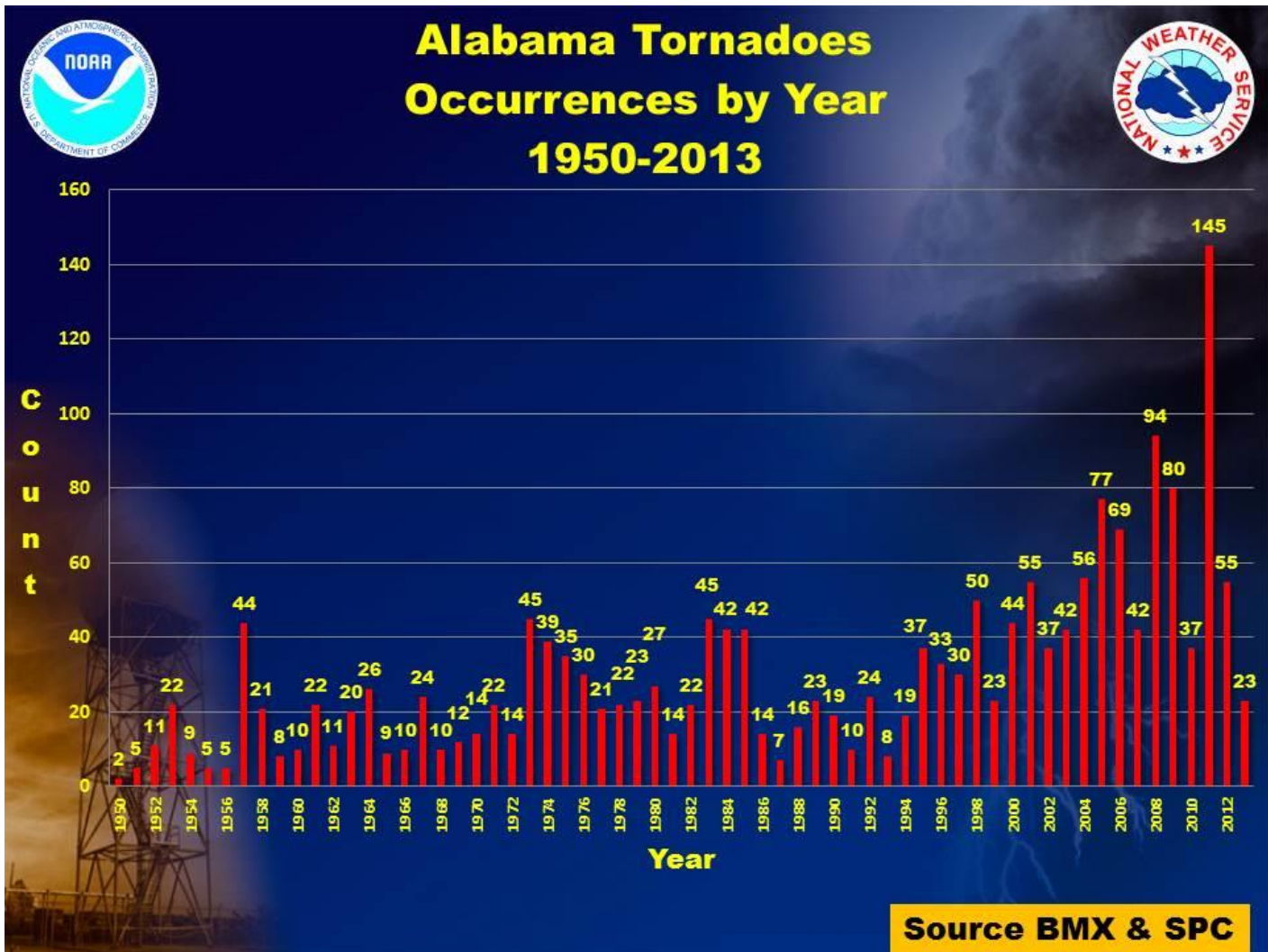


Tornadoes

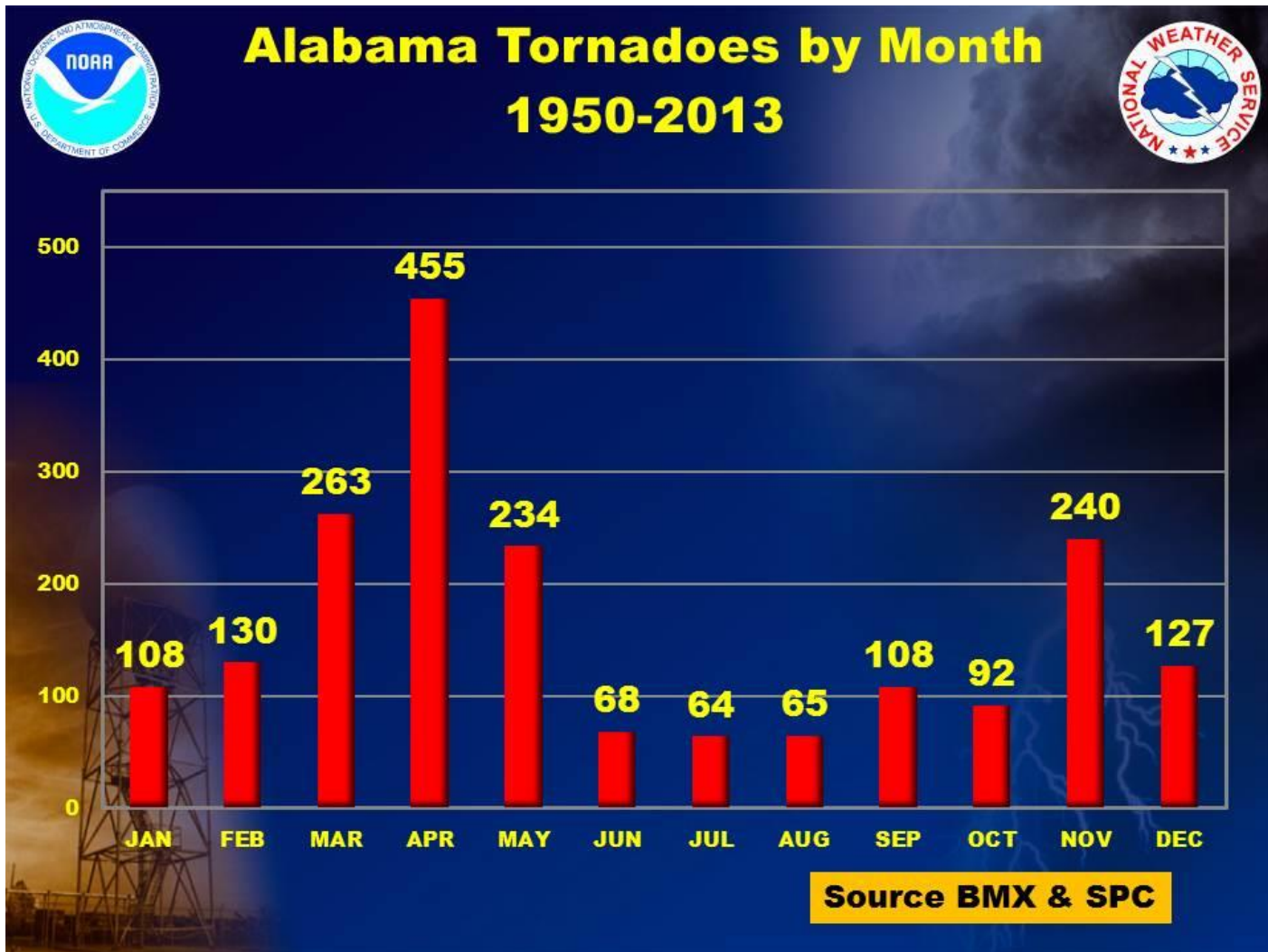


- Two peaks
 - March - May
 - November
- Peak hours
 - 1200L - 1800L

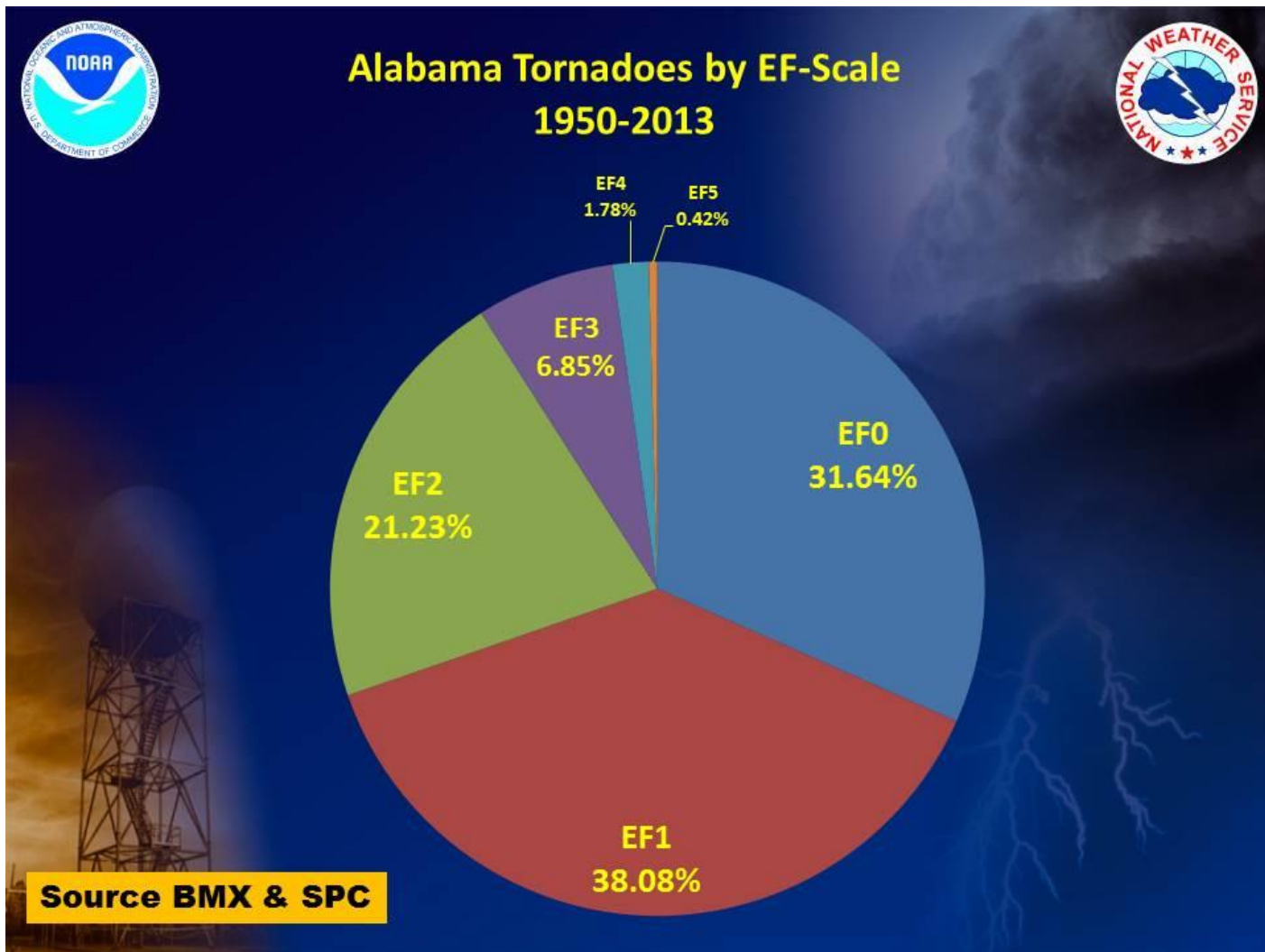
AL Tornadoes By Year



AL Tornadoes By Month



AL Tornadoes by EF-Scale



[illegible]

Source BMX & SPC

Hurricanes

- 01 June - 30 November
- All warnings and advisories pertaining to tropical storm/hurricane activity will be provided to the DoD by the National Hurricane Center
 - We cannot and will not deviate from the forecast track and intensity issued by the NHC

Hurricanes

30-May-14

TROPICAL STORM

CINDY

1045L

UPDATE

BLUF

Overall Threat to Ft Rucker (72 hrs):



Winds:



Rain/Flooding:



Tornadoes:



No Impact



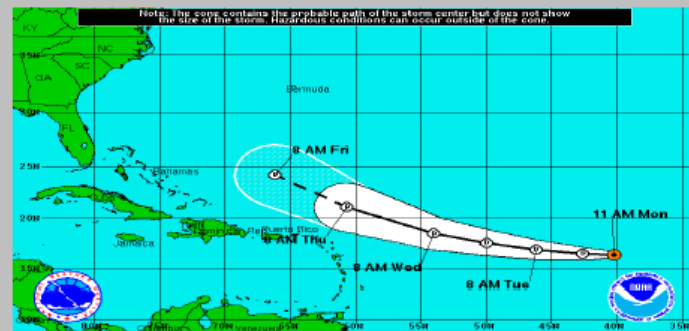
Impacts Possible



Impacts Probable



5-DAY CONE



Post-Tropical Cyclone Florence
Aband. August 6, 2012
11 AM EDT Andrew 11
NWS National Hurricane Center

Potential Track Area:
Day 1-3 Day 4-5

Current Information:
Center Location 18.4 N 40.2 W
Max Sustained Wind 35 mph
Movement W at 15 mph

Watches:
Hurricane Trop.Storm

Forecast Positions:
Tropical Cyclone Post-Tropical
Sustained Winds: D > 39 mph
S > 39-73 mph H 74-110 mph M > 110 mph

Warnings:
Hurricane Trop.Storm

IMPACTS TO FT RUCKER (72 HRS)

THE STORM WILL IMPACT FT RUCKER:	LATE SUNDAY MORNING
IMPACTS TO FT RUCKER:	HEAVY RAIN
ONSET/DURATION OF ≥ 50 KT WINDS (SUSTAINED):	NONE
MAX WINDS EXPECTED:	45 KTS
TIME OF MAX WINDS:	06/2100L
ONSET OF PRECIPITATION:	LATE SUNDAY MORNING
TOTAL RAINFALL EXPECTED:	6-8"
POINT OF CLOSEST APPROACH:	5 MILES

NEXT UPDATE:

30

MAY

@

1645L

Conclusion

- ◆ Numerous hazards exist during the fall and winter months
 - ◆ Turbulence & LLWS
 - ◆ Icing
 - ◆ Thunderstorms (lightning, hail, heavy precipitation, microbursts)
 - ◆ Tornadoes
 - ◆ Hurricanes

Respect the weather

How To Reach Us

- <http://www.rucker.army.mil/6weather.htm>
- usarmy.rucker.usag.mbx.imse-rck-plaw@mail.mil
- Give us a call @ 8385 or 8397
- "Like" us
- "Follow" us
- Grab our App

QUESTIONS?

COMMENTS?

FEEDBACK?

SUGGESTIONS?

THOUGHTS?

RECOMMENDATIONS?

IDEAS?

